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PRICE $5.00

POWER SUPPLY

MODEL 700

SERIAL NO.

OFFICIAL RECORDS STATION
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FACILITIES SFS 41717

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INSTRUCTION MANUAL

kepco inc.®

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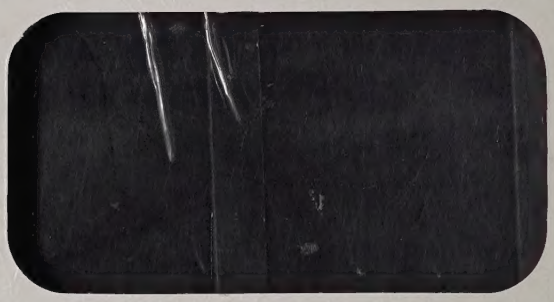

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Flushing, New York

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KEPCO, INC.
131 - 38 Sanford Avenue
Flushing 52, New York

VOLTAGE REGULATED POWER SUPPLY

MODEL 700

The Kepco Model 700 features a regulated high voltage power supply with excellent regulation, low ripple content and low output impedance.

SPECIFICATIONS:

OUTPUT VOLTAGE DC: 0-350 volts continuously variable.

OUTPUT CURRENT DC: 0-750 milliamperes continuous duty.

REGULATION: In the range 30-350 volts the output voltage variation is less than 1/2% for both line fluctuations from 105-125 volts and load variations from minimum to maximum current.

RIPPLE VOLTAGE: Less than 10 millivolts.

FUSE PROTECTION: Input and output fuses on front panel. Time delay relay is included to protect rectifier tubes.

POWER REQUIREMENTS: 105-125 volts, 50-60 cycles.

OUTPUT TERMINATIONS: DC terminals are clearly marked on the front panel. Either positive or negative terminal of the supply may be grounded. DC terminals are isolated from the chassis. A binding post mounted on the front panel is available for connecting to the chassis. All terminals are also brought out; at the back of the chassis

METERS: Ammeter: 0-750 milliamperes, 4" rectangular

Voltmeter: 0-500 volts, 4" rectangular

PHYSICAL SPECIFICATIONS: Cabinet height 22-3/4", width 21-3/4", depth 15-1/4". Rack panel height 21", width 19", color gray, panel engraved.

CONTROLS: Power on-off switch, H. V. on-off switch, H. V. Control.

PROCEDURE FOR TURNING ON POWER SUPPLY: Before turning on the AC power switch, turn the DC voltage control to the extreme left and place the DC switch in the off position. Turn on the AC power switch. Allow 45 seconds for the time delay relay to operate. Turn the DC switch on and adjust the voltage to the desired value.

CAUTION: The top and backdoors of the power supply cabinet should not be opened during normal operation of the power supply. The exposed high voltage inside the cabinet is dangerous. TAKE NECESSARY PRECAUTIONS.

OPERATING INSTRUCTIONS: The Model 700 Regulated Power Supply is shipped with all tubes in place and is ready for operation. The DC output voltage range 0-350 volts is determined by a factory adjustment of two potentiometers, labeled L & H, mounted on the regulator chassis (upper unit). When it is necessary to readjust the voltage limits, the procedure to be followed is:

1. The two potentiometers which control the voltage range have screwdriver adjustments and are locked in position by means of locking nuts. Release the locking nuts on the potentiometers so that the slotted shafts can be easily rotated.

2. Turn the voltage control knob on the front panel to the extreme left and adjust the potentiometers, labeled L, until the voltmeter reads 0 volts (clockwise increases the voltage).

3. Turn the voltage control knob on the front panel to the extreme right and adjust the potentiometer, labeled H, until the voltmeter reads 350 volts (clockwise increases the voltage).

OPERATING INSTRUCTIONS: (cont.):

4. Return the voltage control knob on the front panel to the extreme left. If the voltage is not 0 volts, repeat step 2 and step 3 until the desired range 0-350 volts is obtained.

5. When the potentiometer adjustments are completed, tighten the locking nuts.

CAUTION: When making above adjustments extreme care must be taken to avoid contact with high voltage.

MAINTENANCE: The components of the Model 700 Regulated Power Supply have been selected and tested to provide long and trouble-free operating life. The only service necessary should be the replacement of vacuum tubes. The location of the tubes is clearly marked on the chassis.

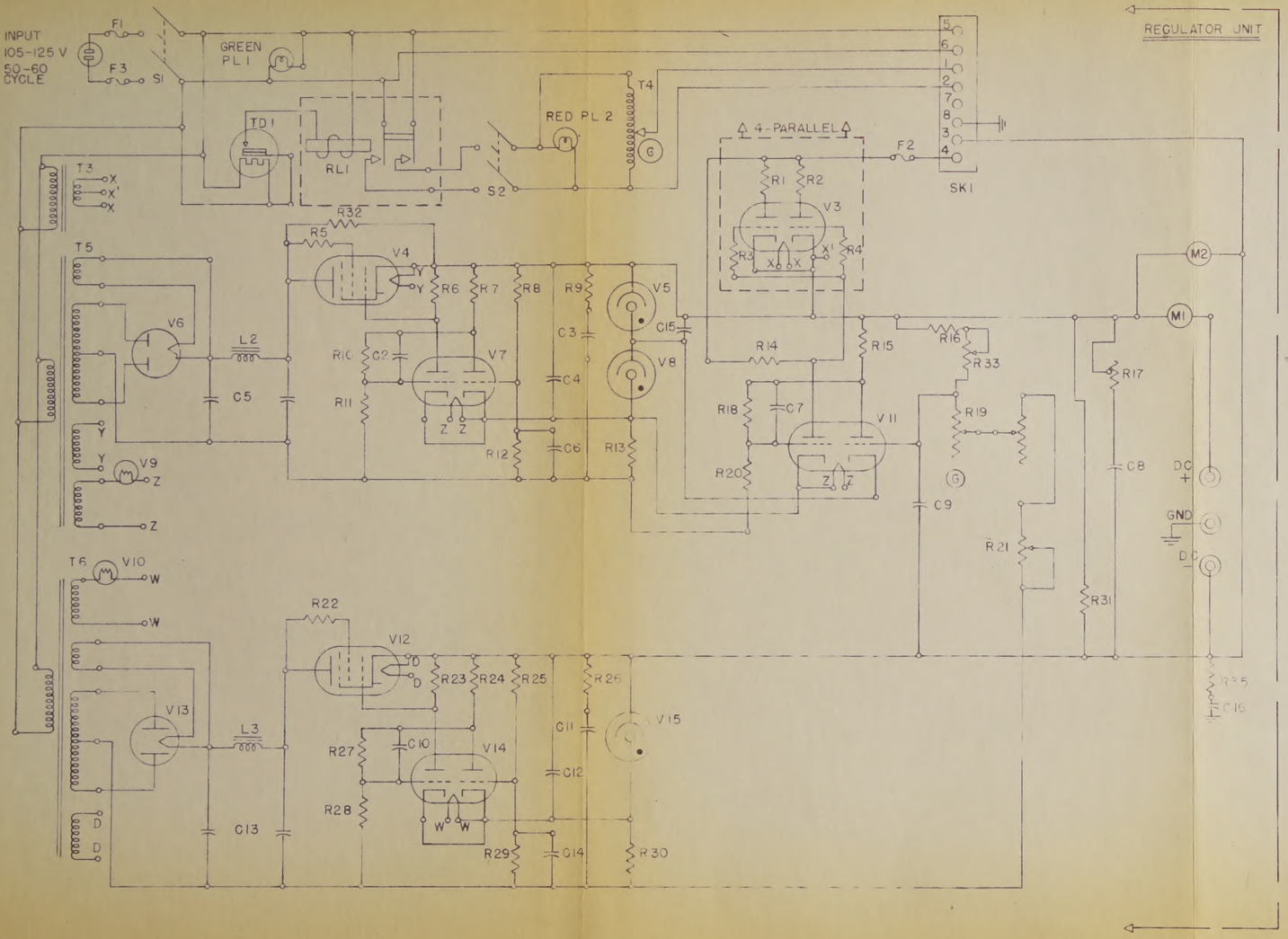
REPAIRS: Should any trouble develop in the instrument, it may be serviced with the aid of the schematic diagram. Major repairs, however, are usually handled by the factory.

Under no circumstances should the instrument be returned to the factory without proper authorization and shipping instructions. In any correspondence with the factory concerning repairs the type and serial number of the instrument must be given together with a description of the trouble encountered.

PARTS LIST - MODEL 700

C1	- 0.25 MFD, 600 W. V.
C2	- 0.1 MFD, 600 W. V.
C3	- 2X1 MFD, 600 W. V.
C4	- 0.25 MFD, 600 W. V.
C5	- 2X2 MFD, 600 W. V.
C6	- 0.1 MFD, 600 W. V.
C7	- 0.1 MFD, 600 W. V.
C8	- 4 MFD, 600 W. V.
C9	- 0.1 MFD, 600 W. V.
C10	- 0.1 MFD, 600 W. V.
C11	- 2X1 MFD, 600 W. V.
C12	- 0.1 MFD, 600 W. V.
C13	- 2X1 MFD, 600 W. V.
C14	- 0.1 MFD, 600 W. V.
C15	- 0.25 MFD, 600 W. V.
C16 to C23	- 10 MFD, 600 W. V. (8 PARALLEL)
F1	- 8 Ampere Fuse
F2	- 3/4 Ampere Fuse
F3	- 8 Ampere Fuse
L2	- Kepco Choke 100-206
L3	- Kepco Choke 100-206
M1	- Milliampere 0-750 Ma. DC
M2	- Voltmeter 0-500 V.DC
PL1	- Pilot Lamp, 6 watt
PL2	- Pilot Lamp, 6 watt
R1	- 47 Ohm, 1 watt
R2	- 47 Ohm, 1 watt
R3	- 100 Ohm, 1 watt
R4	- 100 Ohm, 1 watt
R5	- 100 Ohm, 1 watt
R6	- 1.0 Megohm, 1 watt
R7	- 1.0 Megohm, 1 watt
R8	- 0.27 Megohm, 1 watt
R9	- 10 Ohm, 1 watt
R10	- 3.6 Megohm, 1 watt
R11	- 2.2 Megohm, 1 watt
R12	- 39,000 ohm, 1 watt
R13	- 3,000 Ohm, 10 watt
R14	- 1.0 Megohm, 1 watt
R15	- 1.0 Megohm, 1 watt
R16	- 0.12 Megohm, 1 watt
R17	- 5 Ohm, 10 watt
R18	- 10 Megohm, 1 watt
R19	- Dual 0.5 Megohm, POT, 2 watt
R20	- 1.8 Megohm, 1 watt
R21	- 50,000 ohm, POT 2 watt

R22	- 100 Ohm, 1 watt
R23	- 1.0 Megohm, 1 watt
R24	- 1.0 Megohm, 1 watt
R25	- 0.12 Megohm, 1 watt
R26	- 10 Ohm, 1 watt
R27	- 3.6 Megohm, 1 watt
R28	- 10 Megohm, 1 watt
R29	- 56,000 Ohm, 1 watt
R30	- 10,000 Ohm, 10 watt
R31	- 10,000 Ohm, 20 watt
R32	- 39,000 Ohm, 1 watt
R33	- 0.25 Megohm, POT 2 watt
R34	- 10,000 Ohm, 50 watt
R35	- 10 Ohm, 1 watt
RL1	- DPST Relay
S1	- DPST Switch
S2	- DPST Switch
TD1	- Amperite Time Delay 115 NO 30T
T1	- Kepco Transformer 100-286
T2	- Kepco Transformer 100-338
T3	- Kepco Transformer 100-294
T4	- Powerstat Type 116U
T5	- Kepco Transformer 100-149
T6	- Kepco Transformer 100-149
V1	- 866A
V2	- 866A
V3	- 6080 (4 PARALLEL)
V4	- 6W6GT or 6Y6G
V5	- OD3
V6	- 5Y3GT
V7	- 6SL7GT
V8	- OD3
V9	- Amperite 6-4
V10	- Amperite 3-4
V11	- 6SL7GT
V12	- 6W6GT or 6Y6G
V13	- 5Y3GT
V14	- 6SL7GT
V15	- OD3



KEPCO LABORATORIES			
FLUSHING			NEW YORK
ITEM	MODEL	DATE	DRAWING NO.
POWER SUPPLY REGULATED	700	1-21-53	S-700-01

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